Motorola 52nd Street Superfund Site
Community Advisory Group (CAG) Meeting

Wednesday, February 23, 2005
6:00 p.m. to 8:00 p.m.
Burton Barr Library – 4th Floor Lecture Room
1221 North Central Avenue
Phoenix, Arizona

MINUTES

Members in Attendance:
Hildellred Chambers Ad
Martha Breitenbach
Rey Covarrubias
James Felix
Jeanne Lindsay
Ruth Ann Marston
Marvin Martin
Mary Moore

ADEQ Staff in Attendance:
Kris Paschall, ADEQ Project Manager
David Haag, R.G., ADEQ Project Hydrologist
Monica Mascareno, ADEQ Community Involvement Coordinator

EPA Staff in Attendance:
Janet Rosati, EPA Remedial Project Manager
Viola Cooper, EPA Community Involvement Coordinator

Additional Agency Personnel in Attendance:
Nancy Mangone, AZ Attorney General's Office

ADEQ Contractor:
Nancy Nesky, LFR Levine Fricke
Bob Forsberg, LFR Levine Fricke

EPA Support:
Sue Kraemer, Shaw Environmental
Wayne Schiemann, U.S. Army Corps of Engineers

Others in Attendance:
Rene Chase Dufault
Vera Figueroa
Rebecca Godley
Mary Ranee
Mary Jo Pitzl
Blayne Hartman
Judy Heywood
Jay Quimby
Rob Hinchee
Paul Turnham
Tom Suriano
Mason Bolitho
Mary Gerut
Jeremy Lite
Tom Simpkin
Doug Bartlett
Cynthia Parker
Bob Frank
Vincie Muhammad
Barbara H. Murphy
Jerry D. Worsham II
Rob Mongrain
Prabhat Bacargava
Alison McGregor

OU #06-003

1. Call to Order and Introductions (Monica Mascareno, ADEQ)

Monica Mascareno, Community Involvement Coordinator for the Arizona Department of Environmental Quality (ADEQ), opened the meeting. Ms. Mascareno indicated that Ms. Kris Paschall, ADEQ Remedial Project Manager, would like to speak for a few moments regarding tonight's agenda. Ms. Paschall indicated that the agenda for tonight's meeting is very full, and if the community advisory group (CAG) members would like to re-arrange the topics or to limit discussion on one or more topics, that this is acceptable. The CAG members agreed that the agenda should not be changed; however, they did request that the

presentation from Freescale, Inc. (formerly Motorola, Inc.) on the Operable Unit 1 (OU1) Indoor Vapor Intrusion Assessment be completed as quickly as possible to allow Honeywell representatives as much time as possible to discuss their presentations. One CAG member indicated that while it was important to hear from Honeywell, it was also important that Freescale be able to deliver their entire indoor vapor intrusion discussion during tonight's meeting (which did occur).

Prior to starting the introductions, Ms. Mascareno requested that those in attendance who are here on behalf of a potentially responsible party state the name of the person and/or firm whom they represent. All ADEQ staff, EPA staff, Community Advisory Group (CAG) members, Company Representatives, and audience members introduced themselves. During the introductions, index cards were provided to meeting attendees so that comments or questions could be written down and forwarded to the front of the room so that they could be addressed during the Call to the Public portion of the agenda. Questions related to a speaker's presentation are still welcomed during and immediately after that presentation.

2. Operable Unit 1 Indoor Vapor Intrusion Assessment (Freescale Semiconductor, Inc.)

Mr. Tom Suriano, Freescale, opened the presentation with a brief summary of the various health assessments that have been completed by ADEQ and/or the Agency for Toxic Substances and Disease Registry (ATSDR). Mr. Suriano then introduced the members of the Sciences International (Sciences) Team who helped to develop the work plan to conduct the indoor vapor intrusion assessment on behalf of Freescale. Sciences is based out of Alexandria, VA. Project Director from Sciences is Ms. Elizabeth Anderson, PhD, who could not be here this evening due to previous commitments. Ms. Anderson provides the overall direction, senior scientific oversight and review for the OU1 indoor vapor intrusion assessment on behalf of Freescale. Mr. Paul Turnham, Sciences Project Manager, has over 15 years of experience and will provide tonight's presentation.

Mr. Turnham briefly described the general conceptual model of indoor air vapor intrusion and noted that what is important is that contaminants can volatilize from the groundwater, migrate up through the soil column, and into buildings and homes. Mr. Turnham described the three steps of the screening process: Tier 1 – Evaluate if vapor intrusion is possible; Tier 2 – Collect soil gas samples and evaluate against risk-based screening values; and Tier 3 – Refine assumptions, collect additional data if necessary. Mr. Turnham indicated that Freescale is currently in Tier 2 of the screening process with soil gas sampling scheduled to happen once access has been obtained to all proposed sampling locations.

Two CAG members inquired about the locations of the soil gas samples and whether or not they would be able to assess a child's potential risk from vapor intrusion. The CAG members voiced concern that the risk levels were based on a 70-year exposure, and a child's smaller weight should be considered since it may take a lower dose for an adverse affect to be realized. Mr. Turnham indicated that sensitive populations, such as children, will be addressed by the assessment. One of the proposed sampling locations is on the day care property located just north of OU1 (northwest corner area of 52nd St. and McDowell Rd.) and two sampling locations are at the school. Mr. Turnham went on to say that of all the contaminants of concern that were detected in groundwater, the top three are parent compounds (TCE, TCA, and PCE) and may be subject to vapor intrusion properties.

Mr. Turnham provided a diagram of the 19 proposed active soil gas sampling locations which were selected based on the 2003 plume (the updated plume boundary map provided during tonight's CAG meeting was not available at the time the sampling locations were selected). To address the sensitive populations, two locations were selected on the Brunson Lee Elementary School property and one location was selected on the day care property. The CAG members indicated that the diagram of the proposed sampling locations would be better understood if the street names were added. The figure will be revised and made available at the next CAG meeting. Also, one CAG member inquired if any of the proposed sampling locations were located in private yards. Mr. Suriano indicated that all proposed sampling locations are located in the City of Phoenix Right-of-Way except for those addressing the sensitive populations. Mr. Suriano went on to state that the main reason for this was that it would have been more difficult to secure access to many private yards than to secure access from the City of Phoenix (access from the City for some locations was still pending as of tonight's meeting). Several CAG members indicated that sampling in the streets would be more disruptive than sampling in private yards. The CAG members offered to coordinate with neighborhoods if residents typically park on the street to ensure that they do not park over a proposed sampling location.

Mr. Suriano indicated that a mobile laboratory, that can attain very low detection limits, would be used to analyze the soil gas samples. Mr. Turnham indicated that the sampling should take approximately three to four days of work in the field, with a maximum of one week. After reviewing the data and validating the results for up to one week following the field work, a report will be provided by Sciences to Freescale after another four weeks, for a total time period of six weeks. After this time, Freescale will review the report and submit it to ADEQ for their review. One CAG member asked why soil gas samples were being collected instead of soil (solid) samples. Mr. Suriano responded that soil gas is the preferred methodology.

3. Honeywell 34th Street Draft Focused Remedial Investigation (RI) Report (Honeywell and ADEQ)

Ms. Troy Meyer, Western Portfolio Manager for Honeywell, introduced herself and stated that she has been working in this position and on this project for the past year. Ms. Meyer also indicated that Honeywell is committed to answering questions and also to providing a supplemental technical presentation once the contractor for the Technical Assistance Grant (TAG) has been hired. (NOTE: The Lindon Park Neighborhood Association was recently awarded a $50,000 TAG to hire a technical consultant to assist in the review of documents prepared for the Motorola 52nd Street Superfund Site (Site)).

Ms. Meyer introduced the Honeywell Team that is working with her on the focused remedial investigation of the chlorinated volatile organic compounds (CVOCs) and the jet fuel investigation and cleanup on behalf of Honeywell for their facility located at 34th Street in Phoenix. Below is a summary of the role and qualifications of the team as expressed by Ms. Meyer:

- Bob Frank, CH2M Hill – On project since the RI began pursuant to the 1999 AOC
- Tom Simpkin, CH2M Hill – Lead senior consultant; overall reviewer of Corrective Action Plan (CAP)
- Tom Mooney, CH2M Hill – Overall project manager for the Honeywell 34th Street Facility
- Dr. Jay Quimby, CH2M Hill – Expert in air pollution control technologies and has provided technical review on treatment trains for air emissions for over 20 years

- Mike Long, CH2M Hill – Local hydrogeologist expert and on the project since 1995
- Dr. Robert Hinchey, Integrated Science and Technology, Inc. – Expert on insitu (in the ground) treatment technologies with over 20 years in the field working over 1,000 petroleum and CVOC sites throughout the world
- Mary Swain-Gerut, CH2M Hill - Community Relations coordinator on behalf of Honeywell for this project.

At this time, Mr. Bob Frank provided an overview of the upcoming presentation on the draft Focused Remedial Investigation (FRI) conducted by Honeywell and CH2M Hill for Honeywell's 34th Street Facility. One CAG member inquired as to the boundaries of the FRI as they appeared to be arbitrary since the actual boundary should be wherever the contamination has migrated. Mr. Frank responded that Honeywell investigated areas where Honeywell has data, looking at concentrations of contaminants at the site (facility) as well as other potential sources. The CAG member indicated that the boundary appears to be arbitrarily set at 20th St., yet there have been groundwater impacts beyond 20th St. The CAG member indicated that the CAG would like the boundary to be expanded. Another member of the CAG inquired as to whether or not ADEQ had been involved in determining the boundary or if the FRI boundary was approved by ADEQ. Ms. Kris Paschall indicated that ADEQ had not approved of the FRI boundary described by Honeywell in the draft FRI Report. Ms. Meyer stated that the definition of the FRI boundary had been provided to the agencies and was originally only to go to the Operable Unit 2 (OU2) extraction system (located at 20th Street and Washington). One of the CAG members indicated that it was understood that the purpose of a remedial investigation was to determine the nature and extent of contamination. Ms. Meyer indicated that this was a focused RI in which Honeywell was identified as a potentially responsible party and was to identify what Honeywell contributed to the Motorola 52nd Street Superfund Site plume (groundwater contamination). The CAG member inquired if the public was to infer where the contamination may have migrated. Ms. Meyer indicated that no, this was not the intent of the FRI. The intent was to determine where the contamination migrated to and is it captured by the OU2 treatment system. The CAG member indicated that this was totally unacceptable. The CAG member continued by stating that Honeywell's boundary appears to be arbitrarily limited. The CAG member asked why stop at the border of OU2, OU3, or OU20 (while there is no OU20, the CAG member was indicating that Honeywell should not force a boundary but investigate the full extent of contamination regardless of how far it migrated). Ms. Meyer responded by stating that the source area flows through the Honeywell property, and it was an agreement with ADEQ. The CAG asked ADEQ if an agreement on the FRI boundary was in place. Ms. Paschall indicated that no agreement on the FRI boundary was made; however, ADEQ did discuss with Honeywell the boundary for the feasibility study (FS) for treatment of contaminated groundwater. Additionally, Ms. Paschall indicated that ADEQ agreed that Honeywell would not need to conduct field work west of the OU2 boundary at 20th Street since EPA is currently conducting that work. However, the fact that physical work did not need to be done by Honeywell west of OU2 does not mean that the RI boundary ended at 20th St. In fact, as Ms. Paschall continued to explain, the Administrative Order on Consent (AOC) requires Honeywell to define the extent of their contamination.

Ms. Meyer responded that Honeywell would be happy to conduct the additional work and they are not trying to be limited. However, as Ms. Meyer continued to state, this would be a pretty expansive boundary based on other facilities. Ms. Meyer indicated that the groundwater contamination at the Honeywell's 34th Street Facility contains more jet fuel than solvents. In 1984, as Ms. Meyer stated, Honeywell remediated 400,000

cubic yards (yd^3) of soil impacted by trichloroethene (TCE). Ms. Meyer indicated that Honeywell informed ADEQ and cooperated with ADEQ to remediate hot spots in soil and to identify potential sources of groundwater contamination.

Ms. Meyer indicated that a soil vapor extraction (SVE) was also installed in the center portion of the facility and the well locations were based on a focused soil gas investigation. From this SVE system, according to Ms. Meyer, Honeywell extracted 2,800 pounds (lbs) of volatile organic compounds (VOCs), primarily trichloroethane (TCA). During the same time period, Ms. Meyer continued, Honeywell also extracted approximately 400,000 lbs of petroleum hydrocarbons.

Ms. Meyer indicated that Honeywell signed the AOC in September 1999 which led to a soil gas investigation in 2002 that included areas beneath buildings. From 2001-2003, according to Ms. Meyer, Honeywell conducted a mercury investigation on the northern portion of the facility at Building 301. Ms. Meyer stated that approximately 40 yd^3 of mercury contaminated soil and material from an old stormwater pipe (150 feet (ft) x 200 ft x 3 ft) located adjacent to the building was removed. One CAG member asked if a soil gas survey was conducted to investigate if this were a potential source area for VOCs. Mr. Frank indicated that soil gas samples were collected approximately five to 10 ft below the building foundation of Building 202 and Building 102 since these were potential source areas. Mr. Frank indicated that he did not recall specifically what the results were, but that multiple potential sources within the building were identified. The CAG member asked if this information could be provided to the CAG. Mr. Frank indicated that yes, he would get this information to the CAG members.

One CAG member asked if there was more information on the mercury such as the nature of the source. Mr. Frank indicated that it was thought that manometers which contain mercury were used in Building 301. Mr. Frank indicated that mercury was found in the storm drain along Building 301; it was found in a catch basin that was graded on the surface.

One CAG member inquired about a degreaser that was removed in 2003 and asked if sampling was done and if this sampling indicated that VOCs were present in the degreaser. Ms. Meyer indicated Honeywell did use a vapor degreaser which used chlorinated volatile organic compounds (CVOCs). Honeywell converted this operation to a cold dip tank which used Stoddard solvent in the tank instead of the CVOCs. Ms. Meyer indicated that when the tank was decommissioned, there was less than 1% (0.11%) of TCA in the Stoddard which could have been residual TCA from the vapor degreaser. One CAG member asked Ms. Meyer to convert the 0.11% TCE into a part per million (ppm) or part per billion (ppb) value so that it would be more recognizable to the CAG members. Ms. Meyer responded by saying that Stoddard in the tank is a product that is covered under their Hazard Communication (HAZCOM) Program. Under the HAZCOM Program, as Ms. Meyer stated, if the amount is greater than 1%, then it must be identified. If it is considered to be an extremely hazardous substance, then it must be identified if the concentration is greater than 0.1%. The CAG member followed up with a question as to how long the material in the vapor degreaser sat prior to being sampled and if the container was located inside and if it was ever placed outside. Another CAG member inquired if the material was stored in drums in a waste storage area. Ms. Meyer responded to both CAG members' questions by stating that the material was placed in a secure area that was located outdoors but covered. Ms. Meyer further stated that soil gas samples were taken in the building, but the data did not indicated a potential source. She also stated that Honeywell offered to collect concrete core samples. A CAG member requested Ms. Meyer to clarify how the material was stored outside but covered. Ms. Meyer

indicated that the area was bermed and there was a top cover over the area but rain could enter the area. Ms. Meyer indicated that Honeywell sampled the rain water for characterization. Another CAG member re-confirmed that Honeywell used a solvent which is a heavy contaminant in the tank and that Stoddard was used later. The CAG member inquired as to whether there was any information which stated that there was no spillage from use or any spillage during transfer of the chemicals. Ms. Meyer responded by stating that Honeywell switched to TCA and then in the mid-1990s they began using Stoddard solvent. Ms. Meyer indicated that Honeywell conducted sampling in 2002.

A CAG member indicated that a clear trail was needed to understand what Honeywell was doing. It appeared to the CAG member that there was a high density of degreasers which led to soil investigation samples collected through the foundation. Another CAG member followed up by clarifying that these samples were collected only five to 10 ft below the surface and no groundwater wells were installed beneath the buildings. This same CAG member indicated that if the material from the vapor degreaser was stored outside in the July heat, this would have contributed to vaporization and thus decreased the potential concentration in the sample.

The CAG member continued by inquiring of Ms. Meyer about the status of a notice of violation (NOV) that Honeywell received for the removal of a sump in December 2004. Ms. Meyer indicated that demolition activities near a hangar were necessary after a microburst damaged the structure. As they were pulling out the structures, they also pulled out the sump. Ms. Meyer indicated that Honeywell notified the agency (ADEQ) and collected soil samples. Ms. Meyer stated that the NOV was issued because Honeywell did not notify the agency prior to removing the sump and collecting the soil samples and not because of an environmental activity. Ms. Meyer stated that the results of the soil sampling were provided to Ms. Paschall.

One CAG member asked if an environmental assessment is required if you are demolishing a building. Ms. Meyer indicated that ADEQ and Honeywell have an agreement that whenever an activity involves trenching or demolition, ADEQ must be notified at least seven days prior to the work. In response to the CAG member's question regarding whether or not an environmental assessment is required, Ms. Meyer indicated that she did not know if this was required but will follow up with the facility.

Mr. Frank offered to make full size copies of the various maps presented in the draft FRI and send out to those that are interested.

Mr. Frank then began to talk about the results of the FRI and what these results indicated to Honeywell about the groundwater flow in the area. Mr. Frank indicated that initially there were four groundwater wells on the facility property that provided groundwater data. Mr. Frank stated that even though there were a few heavy rainfalls in the 1990s, the groundwater table has dropped by more than 30 ft since 1992 in the area around the facility. Mr. Frank indicated that three separate contour maps prepared for Honeywell indicate that groundwater flows in a southwesterly direction. Mr. Frank also indicated that a bedrock rise exists near the facility. According to Mr. Frank, water flowed over this bedrock rise in December 1992; however, with the drop in the groundwater table, more of the bedrock rise was exposed and in November 1997 the water had to move around the bedrock rise.

One CAG member indicated that the maps provided by Honeywell show data before the recent rains and when the OU2 treatment system was pumping water. Now with the heavy rains, the CAG member inquired, is the system capturing enough contamination in the soil or is there now a smear zone that needs to be remediated? Mr. Frank indicated that Honeywell has been monitoring water levels at wells since water was released to the Salt River as a result of heavy rainfall. Mr. Frank indicated that this monitoring has shown a rise in water levels with more of a rise the closer to the Salt River than at the facility. One CAG member asked if the groundwater flow is still to the southwest. Mr. Frank indicated that groundwater flows to the southwest on the upgradient side of the bedrock ridge but flows west on the downgradient side of the bedrock ridge. One CAG member asked if the rise in the water table was seen at wells located at the airport. Mr. Frank indicated that near the river the water rise is approximately 20 ft with the rise at the airport around five ft. One CAG member inquired if Honeywell was looking at the effect of the heavy rainfall on the bedrock. Mr. Mike Long indicated that there is less than one foot difference between the changes in water levels between the alluvium and the bedrock.

4. Honeywell Corrective Action Plan Approved, Jet Fuel Cleanup to Begin (Honeywell)

A CAG member indicated that Honeywell's Corrective Action Plan (CAP) did not make any sense. Mr. Frank indicated that this CAP is regulated under a different set of rules than the FRI. Another CAG member asked why the CAP should be a whole separate issue and asked that it be re-examined by ADEQ. A CAG member then indicated that a discussion from the Attorney General's office on the issue of joint jurisdiction is warranted. Ms. Paschall indicated ADEQ can provide a written response and that Nancy Mangone, Assistant Attorney General, is present at tonight's meeting and can provide the legal clarification at this time if necessary. The CAG member reinforced another CAG member's request to have the jurisdiction issue re-examined. Many CAG members inquired as to who a letter should be directed to at ADEQ in order for their concerns to be heard. Ms. Paschall indicated that Superfund first evaluated the jet fuel plume at Honeywell since the Honeywell 34th St. facility was a PRP for the Motorola 52nd Street Superfund Site. However, the information known to Superfund staff at the time indicated that the plume consisted only of jet fuel. Thus, the case had to be referred to ADEQ's Underground Storage Tank Programs Section. One CAG member indicated that now that it is known that the jet fuel plume contains and probably did contain CVOCs, the Superfund program should evaluate if the jet fuel project should revert back to Superfund.

NOTE: No specific discussion on the Honeywell CAP was held due to time restrictions.

5. Enforcement Issues and Update on Additional Potentially Responsible Parties Identified for Facilities within Operable Unit 2 (Kris Paschall, ADEQ)

No specific discussion on this topic was held due to time restrictions.

6. Updated Plume Boundary Map (David Haag, ADEQ)

No specific discussion on this topic was held due to time restrictions.

7. Call to Public

Ms. Mascareno inquired of the public if there were any additional topics that the CAG members or the public would like to discuss. One CAG member asked, by a show of hands, how many community members were present, not including those that represented the agency or a responsible party. Only four people raised their hands indicating that most of those present were people who worked on behalf of the regulatory

agencies or the potentially responsible parties.

Another CAG member requested Ms. Meyer to restate Honeywell's commitment to using air emission controls on remediation technology as she had done during a separate meeting the previous evening. Ms. Meyer indicated that Honeywell is committed to using the additional air treatment train (air emission controls) whenever Honeywell is extracting CVOCs with the petroleum. Ms. Meyer also indicated that information on the Bio-Enhanced Soil Vapor Extraction presentation that was not discussed is included with the handouts for tonight's meeting. Ms. Meyer indicated that the presentation material describes the various alternatives evaluated.

8. Future Meeting Plans & Agenda Discussion

Ms. Mascareno indicated that since a full discussion of the Honeywell CAP could not happen, the next CAG meeting will be reserved to discuss this topic. Although additional discussion on Honeywell's draft FRI was also desired by the CAG members, Ms. Paschall indicated that since ADEQ has not yet completed their comments on the draft FRI Report, they are unable to comment on Honeywell's report or presentation of their findings. Thus, it was decided that further discussion of the draft FRI be postponed until ADEQ has had an opportunity to submit their written comments to Honeywell. Potential dates for the next meeting were discussed.

The CAG decided that the next CAG meeting would be held on March 9, 2005.